Testimony to the House Subcommittee on the Environment and Hazardous Materials
Respectfully Submitted to the Honorable Paul E. Gilmore, Chair
by Karen K. Gautreaux, Deputy Secretary,
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Good afternoon, Mr. Chair and Ladies and Gentlemen of the Committee. I'm Karen Gautreaux, Deputy Secretary of the Louisiana Department of Environmental Quality. Thank you very much for allowing us to participate in this hearing, and especially for allowing us to do so by teleconference.

Exactly one month ago today, Hurricane Katrina made landfall in Buras, Louisiana, and forever changed the physical, cultural, and economic landscape of our state, as well as delivering severe blows to our neighbors to the East in Mississippi, Alabama and Florida. Last Sunday, Hurricane Rita made landfall in the western side of the state in Cameron Parish, severely impacting that portion of our coast, as well as areas that had previously escaped the wrath of Katrina. Our neighbors in Texas who had sent 24 members of a "strike team" to assist us, had to return home and continue their response efforts in their own state. No part of the Gulf coast has remained untouched this hurricane season.

Today I will limit my remarks to our Hurricane Katrina assessment and response efforts to date, as this is the focus of your hearing.

First, I'd like to share with you an observation about Hurricane Katrina that has been repeated by experienced emergency responders from our staff and those of other state and federal agency partners. Simply, "they have seen nothing like it." The magnitude and diversity of the environmental challenges presented by this storm have not been seen before in the United States. I will attempt to give a brief overview of those challenges, how they are being addressed, and actions anticipated in the future.

One of first things our department and our agency partners did in order to best position ourselves to assess and respond to storm impacts was to establish and house a Unified Command Center at LDEQ headquarters in Baton Rouge. The center includes representatives from LDEQ, the U.S. Environmental Protection Agency, (EPA), the U.S. Army Corps of Engineers (Corps), the U.S. Coast Guard (Coast Guard), the U.S. Geological Survey (USGS), the National Oceanic and Atmospheric Agency (NOAA), the Texas Commission on Environmental Quality (TCEQ), the Louisiana Oil Spill Coordinators Office (LOSCO), and the Louisiana Department of Health and Hospitals (LDHH). Local government has also been present at the Center. These representatives are coordinating emergency response, hazard assessment, and environmental sampling and planning activities. We better recognize the value of that coordination in the degree of readiness that we have experienced in response to Hurricane Rita.

One of the key differences between the aftermath of Katrina and other hurricanes was the continued presence of floodwaters in the storm impact area. Because much of the area in New Orleans is below sea level, water that falls or enters the city must evaporate or be

pumped out. As a result of the breaches and overtopping of the flood protection systems, namely floodwalls and levees, approximately 80 percent of the New Orleans area and some of Jefferson Parish remained flooded until the failed parts of the flood protection system could be patched and those areas pumped out. This lead to the floodwater "bowl" in the lowest elevations of the city where water sat for weeks. Hurricane Rita re-flooded areas that had most recently been dewatered. In St. Bernard and Plaquemines Parishes, low-lying areas also suffered from overtopping and breaches of the levee system, leaving them basically at sea level and subject to the tides until the levees could be repaired and the area dewatered, now for the second time.

The areas north of Lake Pontchartrain experienced high winds and flooding. Although the damage was significant, in general those areas are recovering more quickly than Southeast Louisiana.

I'll briefly go through a few the results of the first month's assessment and response activities, and mention issues that are being addressed, and those that will continue to be priorities for the future.

First, the waters in the "bowl" in Orleans and Jefferson Parishes. This water flooded homes, businesses, streets, wastewater treatment facilities, drinking water systems. Initially DEQ and many of our agency partners, including EPA, focused on search and rescue. As people were trapped by the floodwaters and search and rescue efforts were hampered by access, dewatering the area was an urgent public health and safety priority. The decision was made to pump the floodwaters to Lake Pontchartrain. EPA and DEQ coordinated sampling efforts to characterize the floodwaters and measure the potential short and long-term environmental impacts to the lake. EPA sampled the floodwaters, and as DEQ had a good deal of historical water quality information on Lake Pontchartrain, we took responsibility for sampling in the lake and in two canals that are sites in the state's ambient water quality monitoring network. USGS is currently sampling for bacteria in the Lake. All results are being shared by the agencies and are available on the internet.

To date the sampling has revealed that the floodwaters had characteristics common to most urban storm water events, with the contaminants of concern being high levels of fecal coliform bacteria and levels of lead that would be a health concern if a child were to ingest a liter of the floodwater a day for 6 years. These results are not surprising in an area with a flooded wastewater treatment system, submerged vehicles with lead batteries, and older flooded structures with lead paint.

Early results of lake sampling indicate common water quality impacts caused by vegetation debris thrown into the water by hurricane winds and storm surge. This has caused low dissolved oxygen and fish kills in Northshore streams feeding into Lake Pontchartrain. Fecal coliform bacteria counts are slightly elevated in some areas as a result of flooded sewage treatment facilities, flooding of urban sewage lines, and flooding of pastures.

Organic compound sampling and analysis has shown mostly non-detect results. Where detected, concentrations have not exceeded water quality standards. Metals have been below water quality standards with the exception of one sample taken from a New Orleans drainage canal. In general Lake Pontchartrain is maintaining good water quality, and the impacts to date to the Lake have been minimal. We are hopeful that the lake will be back to normal within months, not years, but we will be monitoring for years to ensure that is the case. More detail has been provided here to particularly address the concern about the so called "toxic soup" being dumped into the Lake. To date our results show this to be an inaccurate and alarmist characterization.

Initial sediment samples in the flooded areas indicate that there are no acute health issues that would be expected from the concentrations of compounds observed to date. A summary of the sediment sampling results is included for the record, and sample results are available on the EPA web site.

The results of twenty three air toxic and particulate canister samples in the storm impact area have also been encouraging. One sample taken near a fire in New Orleans contained 56 ppb of benzene, the ATSDR MRL is 50. Three canisters in St. Bernard showed slightly elevated levels of benzene and some other related pollutants, but none exceeded the ATSDR MRL screening levels, and the hydrocarbon profile resembled gasoline and diesel. The sample was taken in an area impacted by a spill. A summary of the air sampling results in attached.

Of great concern are the impacts of a number of oil spills resulting from Katrina. Currently 5 major and 5 minor oil spills are the subject of response efforts. It is estimated that over 6.5 million gallons of oil have been released into the environment, with more spills expected as pipelines and facilities resume operations. Over 2.5 million gallons of oil have been recovered as of September 28, with the Coast Guard and LOSCO being the lead agencies in that effort.

One major priority is the reestablishment of drinking water and wastewater treatment systems. Five of the large waste water treatment systems are now inoperable. The Orleans Eastbank system alone was capable of treating 144,000,000 gallons of wastewater per day, so this is a huge loss in capacity. Four other major facilities that are currently inoperable are located in St. Tammany, St. Bernard and Plaquemines Parishes. One of the big challenges of restoring these facilities is rebuilding the infrastructure associated with them, including miles of conveyances and numerous lift stations. The health risks associated with untreated water and wastewater make restoring these services a top priority. The Corps is working with local government, LDEQ and LDHH, and other federal agencies to restore these functions as quickly as possible.

Another remaining challenge is locating, assessing and addressing between one and five thousand railroad cars that could have been displaced by Katrina. LDEQ had difficulty in quickly obtaining sufficient information from railroad companies to determine potential threats to public safety and the appropriate response. As a result, LDEQ issued 17 administrative orders demanding that information. While more information has since

been provided to us, the result of delays in getting that information could have been tragic. LDEQ is continuing efforts to locate and assess displaced railcars, as well as considering how to improve this process in the future.

There are about 1000 potentially impacted underground storage tanks (USTs) in the storm affected areas, with potential costs of between $39,000,000 and $97,000,000 to repair and remediate underground storage tanks. Final costs will depend upon the level of damage to sites from the storm, as well as disrupted efforts and additional damage at sites that were being remediated. LDEQ is continuing reconnaissance efforts in the storm impact areas, and has developed a draft UST Evaluation Plan to help UST owners and operators identify and address storm related problems.

Finally, not the last challenge by any means, but probably the most daunting task of all, the management of the tons of debris in the storm impact area. Current estimates of the amount of woody waste and construction and demolition debris are about 22,000,000 tons. To give an appreciation of the volume, the landfill used by Orleans Parish disposed of about 1 million tons in an entire year, and in that parish alone the estimate is 12,000,000 tons. The total does not include approximately 350,000 vehicles from which fuel tanks, oil, batteries and mercury switches must be removed, about 60,000 boats. OF The140,000 to 160,000 homes likely include materials that have to be segregated prior to disposal.

In addition to the sheer logistics challenge, much of this total is or was the personal property of someone who may or may not be with us anymore, or may or may not be able to come back to Louisiana. The property may have been left behind in an evacuation with an intention to return, it might or might not be insured, and perhaps is the property of a person who is now a thousand miles away. There are a myriad of issues to be addressed, and a plan that balances public safety, the environment, and legal and social considerations will have to be the ultimate goal. A FEMA debris management team, of which LDEQ is a partner has developed a debris management plan. LDEQ has responsibility for technical support primarily in evaluating sites that have been identified by local government for debris management. DEQ is also responsible for ensuring that disposal is in accordance with existing regulatory requirements and emergency declaration requirements. Local government will play a large role in the management of debris, particularly with regard to recommending sites and protocols for this effort.

EPA is the lead for the collection of hazardous wastes, both orphaned containers and household materials. Hazardous waste collections have been on-going on the Northshore, and collections will begin soon in the other impacted areas.

With regard to RCRA or hazardous wastes, our initial efforts have been to identify permitted facilities, our large quantity generators, and the Tier II facilities. To date, we've contacted facilities to determine which are operating, in the process of re-opening, or shut down, and will determine what future actions need to take place.

One of the benefits of our response efforts has been the use of fairly new technologies that allowed early and effective reconnaissance when access to sites was an issue. Access continues to be an issue in some areas. EPA arranged for overflights with a helicopter equipped with a HAWK camera that can detect hydrocarbons that are invisible to the eye. Leaks that might otherwise go unnoticed can be detected and response prioritized. Similarly, the EPA ASPECT plane could detect compounds from the air, which was especially useful with fires in determining what compounds were being emitted and the appropriate response. EPA also has provided two TAGA vans with house very sophisticated air monitoring instruments. We shared this information with other response agencies, and this information was very valuable in the days immediately following the storm.

It is very difficult to encapsulate the environmental issues associated with Katrina. To help in that regard, I have also provided the committee with a copy of the preliminary estimates of costs for response, assessment and recovery from environmental damages from Katrina. This was an estimate we were asked to provide to our Congressional Delegation within a week or so after the storm. We are currently reviewing those numbers in light of our experience, and would be pleased to forward to the committee a revised version when that work is complete. Besides the numbers, I think one of the values of the document is the systematic identification of issues, that go beyond my time for testimony.

The only other thing I'd like to add that we did not address in our costs estimates document, but are very much concerned about, is the dramatic loss of coastal habitat from the winds and waves of Katrina. We believe that the blow sustained by this fragile ecosystem will likely be among the greatest negative long term impacts to our state and nation, and are hopeful that efforts to rehabilitate this system will commence soon. We realize this is out of the committee's direct jurisdiction, but please be aware that this system provides protection in areas that are directly under your jurisdiction.

With that I'll thank you again for allowing the state of Louisiana to participate in your hearing today, and look forward to your questions and comments.